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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,816	02/25/2002	Andrew Cofler	00GR35154360	1555
27975	7590	07/02/2007		
ALLEN, DYER, DOPPELT, MILBRATH & GILCHRIST P.A. 1401 CITRUS CENTER 255 SOUTH ORANGE AVENUE P.O. BOX 3791 ORLANDO, FL 32802-3791			EXAMINER	
			MOLL, JESSE R	
		ART UNIT	PAPER NUMBER	
		2181		
		MAIL DATE	DELIVERY MODE	
		07/02/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/082,816	COFLER ET AL.
	Examiner	Art Unit
	Jesse R. Moll	2181

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 10 April 2007.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 25-54 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 51-54 is/are allowed.
- 6) Claim(s) 25,36 and 38 is/are rejected.
- 7) Claim(s) 26-35,37 and 39-50 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 25, 36 and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Patterson et al. (Computer Organization & Design) herein referred to as Patterson.

3. Regarding claim 25, 36 and 38 Patterson discloses, as claimed, a method of handling branching instructions using a processor (see Figure 5.13 and Figure 5.19) comprising a program memory (Instruction memory ; see Figure 5.13 and Figure 5.19) storing program instructions, and a processor core (all components besides the program memory; see Figure 5.19) comprising a plurality of processing units (such as ALU and Adder; see Figure 5.13 and Figure 5.19) and a central unit (Controller; see Figure 5.19; note that the controller determines which datapath is used for an instruction) connected thereto, the central unit issuing instructions to the processing units based upon the program instructions (depending on the instructions, different datapaths are used; see page 356, last paragraph), the method comprising: clocking the processor core with a clock signal (see Figure 5.2; page 342); receiving a branching

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instruction (any branch instruction read from Instruction memory; see Figure 5.19) in the course of a current cycle (The clock cycle in which the instruction is read from instruction memory); said central unit comprising a branching module (logic for executing branches) for receiving a branching instruction during a current clock cycle; and executing the received branching instruction in the current cycle (All instructions are executed in the same clock cycle in which they are fetched since it is a scalar processor).

Allowable Subject Matter

5. Claims 26-35, 37, and 39-50 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. Claims 51-54 are allowed.

5. The following is a statement of reasons for the indication of allowable subject matter: Claims 26-29, 37, 39-49 and 51-54 recites the limitation of checking the validity of an address-pointing register, stalling an instruction if it is invalid and executing the instruction during that cycle if it is valid.

6. Similarly, Claims 30-35 recite the limitation checking the validity of an guard-indication register, stalling an instruction if it is invalid and executing the instruction

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during that cycle if it is valid. Hennessy does not teach these limitations and it would have not been obvious to combine these limitations because the system is not superscalar. The other prior art of record does not teach the limitation of executing a branch instruction in the same cycle it is received only if an address-pointing (or guard-indication) register is valid.

7. Claim 50 states that the processor must have a decoupled architecture. The prior art of record does not teach an out of order processor which executes branch instructions in the same clock cycle in which they are received.

Response to Arguments

8. Applicant's arguments with respect to claims 25, 36 and 38 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jesse R. Moll whose telephone number is (571)272-2703. The examiner can normally be reached on M-F 10:00 am - 6:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald A. Sparks can be reached on (571)272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



DONALD SPARKS
SUPERVISORY PATENT EXAMINER

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11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jesse R Moll
Examiner
Art Unit 2181

JM 6/23/2007